

Patent Abstracts of Japan

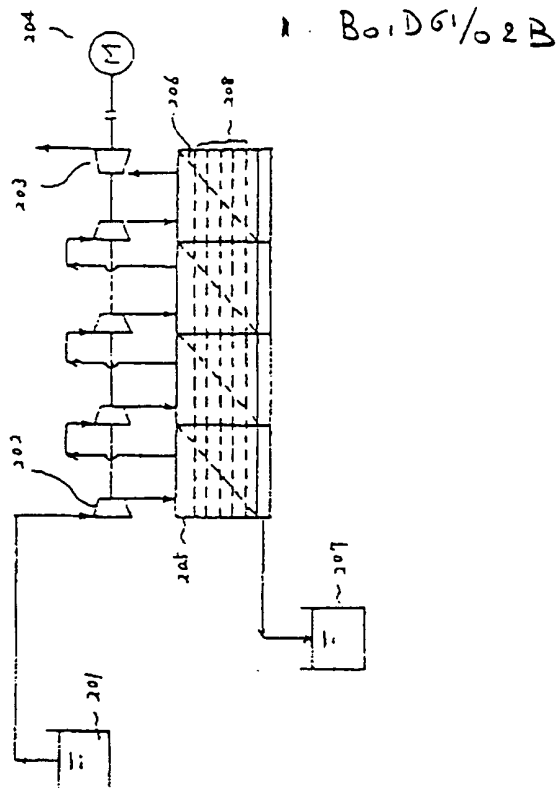
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 PATENTEE : TAKESHI MURAKAMI
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TITLE : SEPARATION APPARATUS
 ACCORDING TO REVERSE OSMOSIS
 METHOD



ABSTRACT : PURPOSE: To reduce an energy consumption unit while enabling the increase of capacity, by constituting a pressurizing apparatus from a capacity and pressure variable type structure by providing a plurality of compressors or pumps and mounting an expansion machine for recovering pressure.

CONSTITUTION: The raw solution sucked from a raw solution tank 20 is pressurized in the first stage of a pressure pump 202 and a part of a solvent is separated in the first stage separation chamber of a reverse osmosis separation apparatus 205 through an osmotic membrane 206 while the conc. raw solution is further pressurized in the second stage of the pressure pump 202 to be guided to a second stage separation chamber. The solvent is successively separated in the same way and the high pressure conc. raw solution reaching a final stage where separation was completed and discharged to the outside reaches a pressure recovery type turbine or pump 203 to recover pressure. The solvent separated in each stage is gathered and guided to a separated solution tank 207 as a product.

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